ORM Corner

Operational

By LCdr. Tony Allou

My crew just had completed a mid-cycle night launch from USS *John F. Kennedy*, and the butterflies that always accompany me until the "Passing 2.5, kilo" call had settled down. It was time to prepare for our Operation Enduring Freedom mission and let the air conditioning work after sitting in a closed, hot, humid cockpit for 30 minutes. The mission, including transit and tanking time, was a 6.5-hour flight and a 0230 recovery. We briefed the standard emergencies and airborne contingencies, concentrating on areas that required a non-standard recovery.

About 10 minutes after launch, the crew noticed a burning smell in the cockpit. It cleared quickly, and a cockpit-security and circuit-breaker check indicated nothing out of the ordinary. The transit to the tanker track was uneventful. An hour into the flight, we completed our check-in with AWACS and rendezvoused with our tanker. As we approached port observation, I heard a slightly high-pitched whine coming from below my seat.

After tanking, we slid over to starboard observation, detached, and proceeded on mission. The pilot asked ECMO 1 to cool the cockpit as we climbed to our transit altitude. I felt the air blowing out of the vents beside my left console, and it was hot. After 15 seconds, ECMO 1 reported no change in air temperature, despite his holding the switch to full cold. We were concentrating so much on the mission that it

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Necessity

took a few minutes for the wheels to turn in our brains, and we started to troubleshoot the problem.

The air was hot, but it was not hot enough to trigger the EA-6B emergency procedure. A full-cooling failure would have allowed unregulated 12th-stage bleed air into the cockpit. This condition would have been intolerable, requiring the execution of the boldface procedures and shutting down all bleed air in the aircraft. We continued to head toward station and began to execute our mission while we discussed our situation.

We decided not to shut off the bleed air, since there were no smoke or fumes. The hot air was bearable. We verified all the environmental-control-system-related circuit breakers were in. After descending to our mission altitude, we discussed what could be done to make the cockpit more comfortable. If the cockpit became too hot, we would continue with the steps outlined in the EP, without actually shutting down our aircraft bleed air. Following the EP would involve shutting off the cockpit air and opening the ram-air valve to let in the outside air. With ram air providing the only source of air pressure, the cockpit and ambient air pressures almost would be equal, instead of having the 8,000-to-9000-foot differential that was normal at our operating altitude.

As we discussed our condition and whether to continue with the mission or return to JFK, we focused on how necessary it was to have a Prowler on station. If this had been a normal sortie around the ship, or if another Prowler could have taken our tasking, the decision would have been an easy one: RTB. Conditions did not warrant returning to base.

We were supporting a direct-action mission on the ground in progress, confirmed by the flash of supporting fire on the ground. To solve the dilemma, we had to think outside established patterns. We had determined it was not a full-hot condition, but the heat was severe. Our mission started with a lot of sweating, and now we were in for more

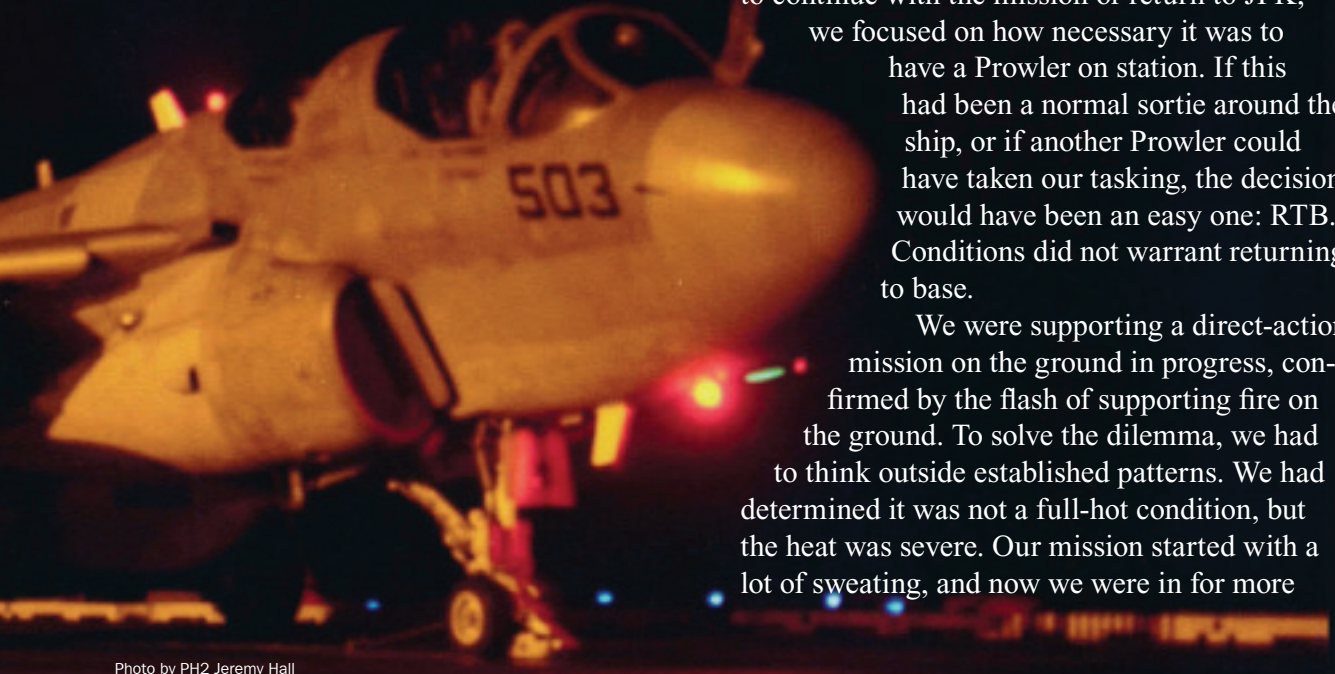

Photo by PH2 Jeremy Hall